

Severn Sound Environmental Association



Town of Midland
Budget Deputation 2022
Julie Cayley, Executive Director



The Severn Sound Watershed



What is the Severn Sound Environmental Association?

- 1987 - Severn Sound identified as Great Lakes Area of Concern (AOC)
- 1997 - SSEA Founded
- 2003 - Severn Sound Delisted as AOC
- 2009 - SSEA Joint Municipal Service Board Established (*Municipal Act s.202*)
 - ED reports to Board representing 8 Municipal members
- Source Protection Authority (Ont. *Clean Water Act*, 2006)



At Severn Sound Environmental Association, we are committed to ensuring exceptional environmental quality and exemplary stewardship of the Severn Sound area through sound science, collaboration and partnerships.

The SSEA Team



Julie Cayley **Executive Director**

B.Sc.; Trent U., P. Ag.



Judy Limoges **Treasurer [PT]**

CPA, CMA, Business Administration; Ryerson Polytechnical Institute



Michelle Hudolin **Wetlands & Habitat Biologist**

B.Sc.Env.; U of Guelph, Certified Water Guide, Wetland Evaluator, Trained in ELC, Wetland Restoration



Aisha Chiandet **Water Scientist**

M.Sc. (Watershed Ecosystems); Trent U. B.Env.Sc.; U. of Guelph,



Tamara Brincat **Invasive Species Program Coord.**

B.Sc.; U of Guelph Ecosystem Restoration; Niagara College; CERPIT, EPt.



Nikki Priestman **Watershed Health Coordinator**

B.A.Sc. Hons MA. Env. Sustainability, Lakehead U; Env. Tech. Adv. Dip., Georgian College



Nicole Stott **Biodiversity Conservation Intern**

B.A.Sc. Env. Sustainability, Lakehead U; Env. Tech., Georgian College



Lex McPhail **IT/GIS Manager**

Terrain/Water Res. Tech., GIS App. Specialist; Fleming College



Paula Madill **Ecosystem Health Technologist**

Env. Biol. Tech.; Canadore College



Melissa Carruthers **Risk Management Official/Inspector**

Env. Tech.; Niagara College MOECC RMO/RMI Training



Morgan Gillies **Healthy Soils=Healthy Watersheds Program Coord.**

B.Env. Eng., U. of Guelph



Emily Edgley **Citizen Science & Water Quality Coord.**

B.Sc., Marine & Freshwater Biology; U of Guelph, Ecosystem Restoration; Niagara College CERPIT



Shannon Mawhinney **Watershed Resilience Coord.**

B.Sc.; Brock U, Ecosystem Restoration; Niagara College CERPIT



TBD **Office Manager - Team Success Facilitator**



Seasonal staff, Contracts, Internships, Co-op students

Vacant Positions: *Watershed Monitoring Lead, Sustainability & Climate Action Coordinator*



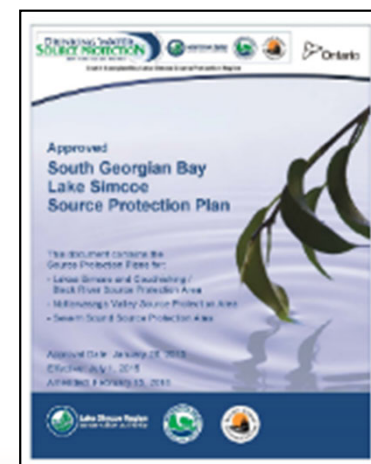
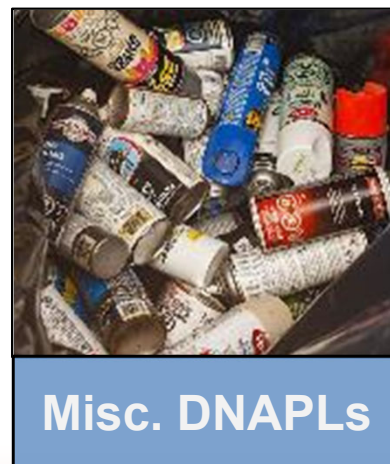
COVID-19 Impacts on SSEA

- Adapted programming to ensure changes in water quality & environment are monitored
 - Expanded Citizen Science programs
 - Continued focus on education & outreach, online presence
- SSEA office
 - IT Manager in office
 - Other staff access office as needed (max 4 in office), otherwise work remotely
 - Office, field work & vehicle sanitizing protocols
- Increased costs include:
 - H&S PPE supplies, developing new protocols
 - Computer upgrades/laptops
 - IT – Zoom & online licenses
 - HR – temporary work from home contracts
 - Increased time to do field work due to sanitizing & COVID-19 protocols, increased mileage due to staff limit per vehicle
 - Longer term – office re-opening capital costs & HR costs (legal)



2021 Drinking Water Source Protection Highlight

- SSEA is your Source Protection Authority (Clean Water Act 2006)
 - Support staff to meet Provincial requirements
 - 101 training session was held with representatives from planning and engineering staff
 - Ensure Source Protection Plan & Assessment Reports stay up to date
 - Working through process regarding changes to Fourth Street and Vindin Wellhead Protection Areas
- Risk Management Official / Risk Management Inspector for the Town
 - Work directly with local residents & businesses, as well as Town staff to mitigate risk to municipal water supplies

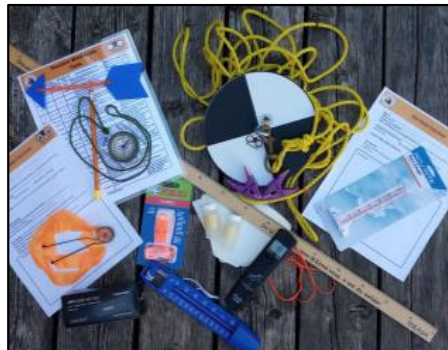


2021 Field Monitoring Highlights

- Water Quality (Little Lake, Open Water, Tributaries, Groundwater)
 - Little Lake Water quality survey - included regular reporting/updates
 - Invasive mussel survey also done for Little Lake
- Climate/Water Level Monitoring
 - Local weather stations (Midland WWTP & Lafontaine), rain gauge (Midland WWTP)
 - Maintain water level gauge at Town dock
- Citizen Science monitoring – Shore Watch, Stream Watch, Ice Spotters & Invasive Species Spotters (new)
 - 3 volunteers in Midland
 - more eyes on the ground = early detection of issues



Little Lake Water
Quality Monitoring



Citizen Science
Monitoring



Rain Gauge



Blue Green Algae
Monitoring

Little Lake Reporting: New format, regular public updates



LITTLE LAKE (Midland) CONDITIONS UPDATE

Sample Date: Oct 12, 2021
(Last sample run)

Temperature at Surface

19.0°C



Temperatures increased slightly with warm daytime temperatures.

Water Clarity 3.2 m



Lake Depth 4.1 m

Water clarity is good, however the lakebed was not visible due to decaying plants & soft sediment.



View from Little Lake boat launch

Bottom Water Dissolved Oxygen

9.6 mg/L



This is plenty for cold and warm water fish species.

Little Lake Outflow Level 25 cm



Readings taken at the McMurty Dr outflow structure indicate that levels have decreased slightly since Sept 27.



Little Lake outflow on McMurty Dr.



General Observations

- Some foam near shore
- Small amount of algae flecks in open waters
- Vegetation decaying on lakebed
- Clear water



2021 Stewardship & Invasive Species (IS) Program Highlights

- Healthy Soils=Healthy Watersheds pilot program supporting agricultural producers & provided presentations to schools re: soil science
- 2021 Tree Seedling Distribution Program: 510 native tree & shrub seedlings distributed/planted by Midland participants (8,890 seedlings to date)
- Planning for 2022 Tree Seedling Distribution & Planting programs
- Invasive Species Program
 - Municipal IS Working Group
 - Identification, monitoring & management at priority locations
 - *Invasive Species Spotters* citizen science opportunities
 - IS Reporting (e.g., 2022 Ldd moth defoliation forecast report; municipal IS reports)
 - IS Resources - factsheets & videos at www.severnsound.ca



Curbside Tree Distribution



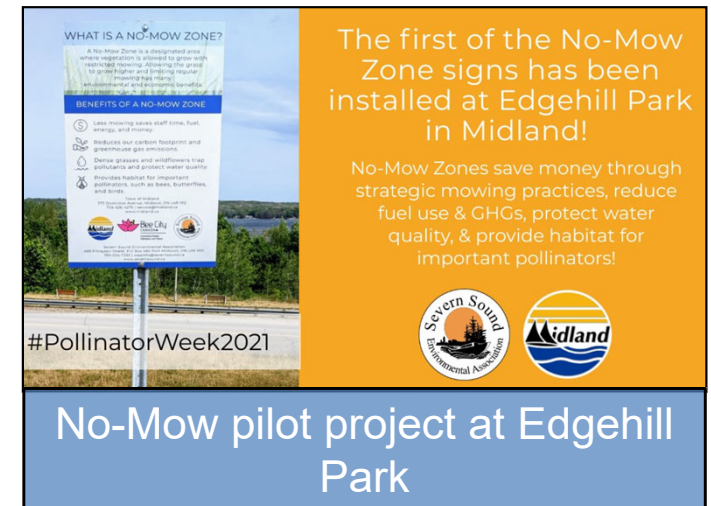
Cover Crops Promote Healthy Soils



Ldd Moth Surveys

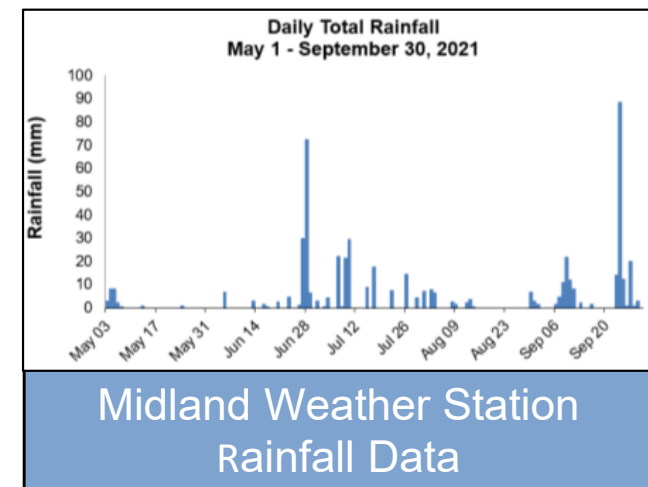
2021 Sustainable Severn Sound Highlights

- PCP Program Associate Member Services
 - Continue to support our municipal partners in Milestone 4 (Implementation) & 5 (GHG analysis & reporting on GHG mitigation actions)
 - Provide Climate Action Plan & yearly GHG Progress Reports
- Establishment of Municipal Climate Leadership Committee
- Climate Planning
 - Helping Town integrate Climate Action Plan goals into municipal plans, policy, & programs
- Support for Bee City membership, No-Mow Pilot project, pollinator protection, GHG reductions through modified turf management (i.e., staff training)



2022 SSEA Work Plan Items

- Implementation of SSEA Strategic Plan
- Drinking Water Source Protection – Source Protection Authority and Risk Management Services
- Environmental Monitoring
 - Water quality (Little Lake & open water monitoring and reporting), tributaries, groundwater
 - Maintaining weather station network (weather stations in Midland & Lafontaine live at www.severnsound.ca)
 - Expand Citizen science program
- Expand social media & public outreach



2022 SSEA Work Plan Items Cont'd

- Plan Input & Review, Habitat Assessment as requested by the Town
- Explore opportunity for Natural Asset Inventory & Valuation
- Stewardship Projects, Tree Planting & Tree Distribution
- Invasive Species Program
 - Continue to work with Midland staff on IS priorities including identification, detection, management training, education
- Enhancing SSS project to build watershed climate resilience
- Healthy Soils = Healthy Watersheds



Zebra mussel surveillance in Little Lake



Protecting and valuing natural assets like pollinator habitat

SSEA 2022 Request – Midland

2022 Total Budget Request: \$155,832

Operations Core Municipal Funding

- **\$128,164**

Risk Management Services

- **\$9,171**

Little Lake

Water Quality, Algae & Zebra Mussel Survey

- **\$7,018**

Tree Distribution Program

In-kind time from Town

- **\$0**

Sustainable Severn Sound project

Technical GHG data analysis, climate plan support, PCP Associate Member services, enhanced communications, building climate resilience

- **\$11,479**



Monitoring water levels on Little Lake



Midland & SSEA Staff removing IS

Thank you!

Learn more at:

 @severnsoundea
 @SSEA_SSRAP
 YouTube

www.severnsound.ca

SSEA...Keeping Severn Sound healthy...for
the next generation and beyond

jcayley@severnsound.ca



TOWNSHIP OF / CANTON DE
Tiny



Township of
Oro-Medonte
Proud Heritage, Exciting Future

 Township of
Springwater

